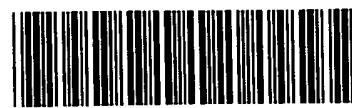


03-28-02

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/066,320

DATE: 02/22/2002
TIME: 13:05:17

Input Set : A:\1818.1030-003 seq listing.txt
Output Set: N:\CRF3\02222002\J066320.raw

ENTERED

4 <110> APPLICANT: Stamler, Jonathan S.
5 Gow, Andrew J.
6 Singel, David J.
8 <120> TITLE OF INVENTION: Method for Determining Physiological
9 Effects of Hemoglobin
11 <130> FILE REFERENCE: 1818.1030-003
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/066,320
C--> 13 <141> CURRENT FILING DATE: 2002-01-31
13 <150> PRIOR APPLICATION NUMBER: PCT/US00/21101
14 <151> PRIOR FILING DATE: 2000-08-02
16 <150> PRIOR APPLICATION NUMBER: US60/146,680
17 <151> PRIOR FILING DATE: 1999-08-02
19 <160> NUMBER OF SEQ ID NOS: 4
21 <170> SOFTWARE: FastSEQ for Windows Version 4.0
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 11
25 <212> TYPE: PRT
26 <213> ORGANISM: Homo sapiens
28 <400> SEQUENCE: 1
29 Met Glu Glu Leu Gln Asp Asp Tyr Glu Asp Glu
30 1 5 10
33 <210> SEQ ID NO: 2
34 <211> LENGTH: 911
35 <212> TYPE: PRT
36 <213> ORGANISM: Homo sapiens
38 <400> SEQUENCE: 2
39 Met Glu Glu Leu Gln Asp Asp Tyr Glu Asp Met Met Glu Glu Asn Leu
40 1 5 10 15
41 Glu Gln Glu Glu Tyr Glu Asp Pro Asp Ile Pro Glu Ser Gln Met Glu
42 20 25 30
43 Glu Pro Ala Ala His Asp Thr Glu Ala Thr Ala Thr Asp Tyr His Thr
44 35 40 45
45 Thr Ser His Pro Gly Thr His Lys Val Tyr Val Glu Leu Gln Glu Leu
46 50 55 60
47 Val Met Asp Glu Lys Asn Gln Glu Leu Arg Trp Met Glu Ala Ala Arg
48 65 70 75 80
49 Trp Val Gln Leu Glu Glu Asn Leu Gly Glu Asn Gly Ala Trp Gly Arg
50 85 90 95
51 Pro His Leu Ser His Leu Thr Phe Trp Ser Leu Leu Glu Leu Arg Arg
52 100 105 110
53 Val Phe Thr Lys Gly Thr Val Leu Leu Asp Leu Gln Glu Thr Ser Leu
54 115 120 125
55 Ala Gly Val Ala Asn Gln Leu Leu Asp Arg Phe Ile Phe Glu Asp Gln

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/066,320

DATE: 02/22/2002
TIME: 13:05:17

Input Set : A:\1818.1030-003 seq listing.txt
Output Set: N:\CRF3\02222002\J066320.raw

56	130	135	140
57	Ile Arg Pro Gln Asp Arg	Glu Glu Leu Leu Arg Ala Leu Leu Lys	
		150	155
58	145		160
59	His Ser His Ala Gly	Glu Leu Glu Ala Leu Gly Val Lys Pro Ala	
60	165	170	175
61	Val Leu Thr Arg Ser Gly Asp Pro Ser Gln Pro Leu Leu Pro Gln His		
62	180	185	190
63	Ser Ser Leu Glu Thr Gln Leu Phe Cys Glu Gln Gly Asp Gly Gly Thr		
64	195	200	205
65	Glu Gly His Ser Pro Ser Gly Ile Leu Glu Lys Ile Pro Pro Asp Ser		
66	210	215	220
67	Glu Ala Thr Leu Val Leu Val Gly Arg Ala Asp Phe Leu Glu Gln Pro		
68	225	230	235
69	Val Leu Gly Phe Val Arg Leu Gln Glu Ala Ala Glu Leu Glu Ala Val		
70	245	250	255
71	Glu Leu Pro Val Pro Ile Arg Phe Leu Phe Val Leu Leu Gly Pro Glu		
72	260	265	270
73	Ala Pro His Ile Asp Tyr Thr Gln Leu Gly Arg Ala Ala Ala Thr Leu		
74	275	280	285
75	Met Ser Glu Arg Val Phe Arg Ile Asp Ala Tyr Met Ala Gln Ser Arg		
76	290	295	300
77	Gly Glu Leu Leu His Ser Leu Glu Gly Phe Leu Asp Cys Ser Leu Val		
78	305	310	315
79	Leu Pro Pro Thr Asp Ala Pro Ser Glu Gln Ala Leu Leu Ser Leu Val		
80	325	330	335
81	Pro Val Gln Arg Glu Leu Leu Arg Arg Arg Tyr Gln Ser Ser Pro Ala		
82	340	345	350
83	Lys Pro Asp Ser Ser Phe Tyr Lys Gly Leu Asp Leu Asn Gly Gly Pro		
84	355	360	365
85	Asp Asp Pro Leu Gln Gln Thr Gly Gln Leu Phe Gly Gly Leu Val Arg		
86	370	375	380
87	Asp Ile Arg Arg Arg Tyr Pro Tyr Tyr Leu Ser Asp Ile Thr Asp Ala		
88	385	390	395
89	Phe Ser Pro Gln Val Leu Ala Ala Val Ile Phe Ile Tyr Phe Ala Ala		
90	405	410	415
91	Leu Ser Pro Ala Ile Thr Phe Gly Gly Leu Leu Gly Glu Lys Thr Arg		
92	420	425	430
93	Asn Gln Met Gly Val Ser Glu Leu Leu Ile Ser Thr Ala Val Gln Gly		
94	435	440	445
95	Ile Leu Phe Ala Leu Leu Gly Ala Gln Pro Leu Leu Val Val Gly Phe		
96	450	455	460
97	Ser Gly Pro Leu Leu Val Phe Glu Glu Ala Phe Phe Ser Phe Cys Glu		
98	465	470	475
99	Thr Asn Gly Leu Glu Tyr Ile Val Gly Arg Val Trp Ile Gly Phe Trp		
100	485	490	495
101	Leu Ile Leu Leu Val Val Leu Val Val Ala Phe Glu Gly Ser Phe Leu		
102	500	505	510
103	Val Arg Phe Ile Ser Arg Tyr Thr Gln Glu Ile Phe Ser Phe Leu Ile		
104	515	520	525

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/066,320

DATE: 02/22/2002
TIME: 13:05:17

Input Set : A:\1818.1030-003 seq listing.txt
Output Set: N:\CRF3\02222002\J066320.raw

105 Ser Leu Ile Phe Ile Tyr Glu Thr Phe Ser Lys Leu Ile Lys Ile Phe
106 530 535 540
107 Gln Asp His Pro Leu Gln Lys Thr Tyr Asn Tyr Asn Val Leu Met Val
108 545 550 555 560
109 Pro Lys Pro Gln Gly Pro Leu Pro Asn Thr Ala Leu Leu Ser Leu Val
110 565 570 575
111 Leu Met Ala Gly Thr Phe Phe Ala Met Met Leu Arg Lys Phe Lys
112 580 585 590
113 Asn Ser Ser Tyr Phe Pro Gly Lys Leu Arg Arg Val Ile Gly Asp Phe
114 595 600 605
115 Gly Val Pro Ile Ser Ile Leu Ile Met Val Leu Val Asp Phe Phe Ile
116 610 615 620
117 Gln Asp Thr Tyr Thr Gln Lys Leu Ser Val Pro Asp Gly Phe Lys Val
118 625 630 635 640
119 Ser Asn Ser Ser Ala Arg Gly Trp Val Ile His Pro Leu Gly Leu Arg
120 645 650 655
121 Ser Glu Phe Pro Ile Trp Met Met Phe Ala Ser Ala Leu Pro Ala Leu
122 660 665 670
123 Leu Val Phe Ile Leu Ile Phe Leu Glu Ser Gln Ile Thr Thr Leu Ile
124 675 680 685
125 Val Ser Lys Pro Glu Arg Lys Met Val Lys Gly Ser Gly Phe His Leu
126 690 695 700
127 Asp Leu Leu Leu Val Val Gly Met Gly Gly Val Ala Ala Leu Phe Gly
128 705 710 715 720
129 Met Pro Trp Leu Ser Ala Thr Thr Val Arg Ser Val Thr His Ala Asn
130 725 730 735
131 Ala Leu Thr Val Met Gly Lys Ala Ser Thr Pro Gly Ala Ala Ala Gln
132 740 745 750
133 Ile Gln Glu Val Lys Glu Gln Arg Ile Ser Gly Leu Leu Val Ala Val
134 755 760 765
135 Leu Val Gly Leu Ser Ile Leu Met Glu Pro Ile Leu Ser Arg Ile Pro
136 770 775 780
137 Leu Ala Val Leu Phe Gly Ile Phe Leu Tyr Met Gly Val Thr Ser Leu
138 785 790 795 800
139 Ser Gly Ile Gln Leu Phe Asp Arg Ile Leu Leu Leu Phe Lys Pro Pro
140 805 810 815
141 Lys Tyr His Pro Asp Val Pro Tyr Val Lys Arg Val Lys Thr Trp Arg
142 820 825 830
143 Met His Leu Phe Thr Gly Ile Gln Ile Ile Cys Leu Ala Val Leu Trp
144 835 840 845
145 Val Val Lys Ser Thr Pro Ala Ser Leu Ala Leu Pro Phe Val Leu Ile
146 850 855 860
147 Leu Thr Val Pro Leu Arg Arg Val Leu Leu Pro Leu Ile Phe Arg Asn
148 865 870 875 880
149 Val Glu Leu Gln Cys Leu Asp Ala Asp Asp Ala Lys Ala Thr Phe Asp
150 885 890 895
151 Glu Glu Glu Gly Arg Asp Glu Tyr Asp Glu Val Ala Met Pro Val
152 900 905 910
155 <210> SEQ ID NO: 3

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/066,320

DATE: 02/22/2002
TIME: 13:05:17

Input Set : A:\1818.1030-003 seq listing.txt
Output Set: N:\CRF3\02222002\J066320.raw

156 <211> LENGTH: 201
157 <212> TYPE: PRT
158 <213> ORGANISM: Homo sapiens
160 <400> SEQUENCE: 3
161 Met Glu Glu Leu Gln Asp Asp Tyr Glu Asp Met Met Glu Glu Asn Leu
162 1 5 10 15
163 Glu Gln Glu Glu Tyr Glu Asp Pro Asp Ile Pro Glu Ser Gln Met Glu
164 20 25 30
165 Glu Pro Ala Ala His Asp Thr Glu Ala Thr Ala Thr Asp Tyr His Thr
166 35 40 45
167 Thr Ser His Pro Gly Thr His Lys Val Tyr Val Glu Leu Gln Glu Leu
168 50 55 60
169 Val Met Asp Glu Lys Asn Gln Glu Leu Arg Trp Met Glu Ala Ala Arg
170 65 70 75 80
171 Trp Val Gln Leu Glu Glu Asn Leu Gly Glu Asn Gly Ala Trp Gly Arg
172 85 90 95
173 Pro His Leu Ser His Leu Thr Phe Trp Ser Leu Leu Glu Leu Arg Arg
174 100 105 110
175 Val Phe Thr Lys Gly Thr Val Leu Leu Asp Leu Gln Glu Thr Ser Leu
176 115 120 125
177 Ala Gly Val Ala Asn Gln Leu Leu Asp Arg Phe Ile Phe Glu Asp Gln
178 130 135 140
179 Ile Arg Pro Gln Asp Arg Glu Glu Leu Leu Arg Ala Leu Leu Leu Lys
180 145 150 155 160
181 His Ser His Ala Gly Glu Leu Glu Ala Leu Gly Gly Val Lys Pro Ala
182 165 170 175
183 Val Leu Thr Arg Ser Gly Asp Pro Ser Gln Pro Leu Leu Pro Gln His
184 180 185 190
185 Ser Ser Leu Glu Thr Gln Leu Phe Cys
186 195 200
189 <210> SEQ ID NO: 4
190 <211> LENGTH: 317
191 <212> TYPE: PRT
192 <213> ORGANISM: Homo sapiens
194 <400> SEQUENCE: 4
195 Met Glu Glu Leu Gln Asp Asp Tyr Glu Asp Met Met Glu Glu Asn Leu
196 1 5 10 15
197 Glu Gln Glu Glu Tyr Glu Asp Pro Asp Ile Pro Glu Ser Gln Met Glu
198 20 25 30
199 Glu Pro Ala Ala His Asp Thr Glu Ala Thr Ala Thr Asp Tyr His Thr
200 35 40 45
201 Thr Ser His Pro Gly Thr His Lys Val Tyr Val Glu Leu Gln Glu Leu
202 50 55 60
203 Val Met Asp Glu Lys Asn Gln Glu Leu Arg Trp Met Glu Ala Ala Arg
204 65 70 75 80
205 Trp Val Gln Leu Glu Glu Asn Leu Gly Glu Asn Gly Ala Trp Gly Arg
206 85 90 95
207 Pro His Leu Ser His Leu Thr Phe Trp Ser Leu Leu Glu Leu Arg Arg
208 100 105 110

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/066,320

DATE: 02/22/2002
TIME: 13:05:17

Input Set : A:\1818.1030-003 seq listing.txt
Output Set: N:\CRF3\02222002\J066320.raw

209 Val Phe Thr Lys Gly Thr Val Leu Leu Asp Leu Gln Glu Thr Ser Leu
210 115 120 125
211 Ala Gly Val Ala Asn Gln Leu Leu Asp Arg Phe Ile Phe Glu Asp Gln
212 130 135 140
213 Ile Arg Pro Gln Asp Arg Glu Glu Leu Leu Arg Ala Leu Leu Leu Lys
214 145 150 155 160
215 His Ser His Ala Gly Glu Leu Glu Ala Leu Gly Gly Val Lys Pro Ala
216 165 170 175
217 Val Leu Thr Arg Ser Gly Asp Pro Ser Gln Pro Leu Leu Pro Gln His
218 180 185 190
219 Ser Ser Leu Glu Thr Gln Leu Phe Cys Glu Gln Gly Asp Gly Gly Thr
220 195 200 205
221 Glu Gly His Ser Pro Ser Gly Ile Leu Glu Lys Ile Pro Pro Asp Ser
222 210 215 220
223 Glu Ala Thr Leu Val Leu Val Gly Arg Ala Asp Phe Leu Glu Gln Pro
224 225 230 235 240
225 Val Leu Gly Phe Val Arg Leu Gln Glu Ala Ala Glu Leu Glu Ala Val
226 245 250 255
227 Glu Leu Pro Val Pro Ile Arg Phe Leu Phe Val Leu Leu Gly Pro Glu
228 260 265 270
229 Ala Pro His Ile Asp Tyr Thr Gln Leu Gly Arg Ala Ala Ala Thr Leu
230 275 280 285
231 Met Ser Glu Arg Val Phe Arg Ile Asp Ala Tyr Met Ala Gln Ser Arg
232 290 295 300
233 Gly Glu Leu Leu His Ser Leu Glu Gly Phe Leu Asp Cys
234 305 310 315

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/066,320

DATE: 02/22/2002
TIME: 13:05:18

Input Set : A:\1818.1030-003 seq listing.txt
Output Set: N:\CRF3\02222002\J066320.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date